

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION V

Hagen Farm

27/87

4000

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IN THE MATTER OF:

Hagen Farm Site
2318 County Truck Highway A
Stoughton, Wisconsin 53589

DUPLICATE
RECORDS CENTER
7TH FLOOR

RESPONDENTS:

Waste Management of Wisconsin, Inc.)
W124N8925 Boundary Road)
Menomonee Falls, Wisconsin 53051)

ADMINISTRATIVE ORDER
BY CONSENT RE: REMEDIAL
INVESTIGATION AND
FEASIBILITY STUDY

and)
Uniroyal Plastics Co., Inc.)
312 N. Hill Street)
Mishawaka, Indiana 46544)

U.S. EPA Docket No.

V-W- '87-C-016

Proceeding under Section 122(a)
and (d)(3) of the Comprehen-
sive Environmental Response,
Compensation, and Liability
Act of 1980, as amended.

The United States Environmental Protection Agency
("U.S. EPA"), the Wisconsin Department of Natural Resources
("WDNR") and the Respondents have each agreed to the terms of
this Administrative Order by Consent ("Consent Order").

I. JURISDICTION

A. This Consent Order is issued pursuant to the authority
vested in the President of the United States by Section 122(a)
and (d)(3) of the Comprehensive Environmental Response, Compens-
ation, and Liability Act of 1980, 42 U.S.C. § 9601 et seq., as
amended by the Superfund Amendments and Reauthorization Act of
1986, Pub. L. 99-499 ("CERCLA"), and delegated to the Admini-
strator of the U.S. EPA on January 29, 1987 by Executive Order
12580, 52 Federal Register 2923, and further delegated to the
Assistant Administrator for Solid Waste and Emergency Response
and the Regional Administrators by U.S. EPA delegation

Appendix A

No. 14-14C. This Consent Order is also issued pursuant to the authority vested in the WDNR by Section 144.442, Wisconsin statutes.

B. The Respondents to this Consent Order agree to undertake all actions required by the terms and conditions hereunder, and consent to and will not contest or legally challenge the issuance of this Consent Order or the U.S. EPA's or the WDNR's jurisdiction regarding this Consent Order.

II. NOTICE OF ACTION

A. The U.S. EPA has notified all potentially responsible parties whom it has identified as of the date of entry of this Consent Order of this action and has provided them with the names and addresses of potentially responsible parties, the volume and nature of substances contributed by each of them, and a ranking by volume of the substances at the Hagen Farm Site, to the extent such information is available, pursuant to Section 122(e) of CERCLA.

B. U.S. EPA has notified the Federal Natural Resource trustee of this action pursuant to the requirements of Section 122(j) of CERCLA.

III. PARTIES BOUND

A. This Consent Order applies to and binds the following persons as defined in Section 101(21) of CERCLA:

- (1) the U.S. EPA, through the Regional Administrator, Region V;

- (2) the WDNR, through the Secretary;
- (3) the following persons as defined in Section 101(21) of CERCLA, herein referred to as the "Respondents":
 - Waste Management of Wisconsin, Inc.
 - Uniroyal Plastics Co., Inc.
- (4) the officers, directors, principals, employees, agents, successors and assignees of the Respondents, U.S. EPA and WDNR in implementing this Consent Order.

B. Each undersigned representative of the U.S. EPA, the WDNR, and the Respondents certifies that he or she is fully authorized to enter into the terms and conditions of this Consent Order and to execute and legally bind such party to this document.

C. No change in ownership, or corporate or partnership status shall in any way alter the status or responsibility of any Respondent under this Consent Order. The Respondents shall be jointly and severally responsible for carrying out all actions required of the Respondents by the terms and conditions of this Consent Order. Respondents shall provide a copy of this Consent Order to all contractors, laboratories, and consultants retained to conduct any portion of the work to be performed pursuant to this Consent Order prior to their individual participation on Respondents' behalf and shall require that any such contractors, sub-contractors, laboratory and consultants abide by the terms of this Consent Order. In any action to enforce the terms of this Order, it shall not be a defense that any such act or omission alleged to have resulted in a breach hereof, was performed by any contractor, sub-contractor, laboratory or consultant.

IV. STATEMENT OF PURPOSE

A. In entering into this Consent Order, the mutual objectives of the U.S. EPA, the WDNR and the Respondents are for the Respondents:

- (1) to conduct a remedial investigation (RI) to determine fully the nature and extent of the release or threatened release of hazardous substances, pollutants or contaminants from the Site, and
- (2) to perform a feasibility study (FS) to identify and evaluate alternatives for the appropriate extent of remedial action to prevent or mitigate the migration or the release or threatened release of hazardous substances, pollutants, or contaminants from the Facility.

B. The activities conducted pursuant to this Consent Order are subject to the review of the U.S. EPA and the WDNR and the approval by the U.S. EPA, shall employ sound scientific, engineering and construction practices and shall be consistent with the National Contingency Plan, 40 CFR § 300.68(a)(j) as amended, and CERCLA.

V. FINDINGS OF FACT

Based upon information available on the effective date of this Consent Order, the Regional Administrator of the U.S. EPA, Region V, and the Secretary of the WDNR make the following findings:

A. The Hagen Farm Site (hereinafter the "Site") is located at 2318 County Truck Highway A, Stoughton, Wisconsin, and occupies the northeast quarter and southwest quarter of Section 10, T5N, R11E, Dane County, Wisconsin. The Site is set in a rural surrounding

that is dominated largely by agriculture.

B. Approximately 350 people live within a one mile radius of the Site. The closest surface water body is the Yahara River, which flows approximately 1 1/2 miles southwest of the Site. Approximately eight private wells are located within 1200 feet of the Site boundaries, not all of which are in use. The City of Stoughton drinking water wells are located no more than 2 miles from the Site boundaries, on the other side of the Yahara River, and although there is no current evidence of any contamination of the City wells, groundwater does present a potential route of human contamination, and must therefore be studied.

C. The Site operated as a disposal facility from approximately August of 1962 until August of 1966. The Wisconsin Department of Natural Resources (WDNR) has estimated that as many as 5000 drums of waste material may have been disposed of at the site. The former disposal area encompasses approximately five acres of land located in the southwestern portion of the Site which previously had been used as a gravel quarry. The quarry was believed to be approximately 14 to 18 feet deep at the time of waste disposal. Waste solvents and other various organic materials were disposed of at the Site. These included acetone, butyl acetate, 1-2-dichloroethylene, vinyl chloride and tetrahydrofuran.

D. During the period the Site functioned as a disposal facility, the property was owned by Nora Sundby, who is now deceased. The Site was operated by City Disposal, an antecedent

corporation of Waste Management of Wisconsin, Inc. City Disposal was also the transporter of much of the waste that went to the Site. The Site property is currently owned by Waste Management of Wisconsin, Inc. The U.S. Rubber Company plant at Stoughton, Wisconsin, generated industrial waste some of which was disposed of at the Site from sometime in 1962 until August of 1966. The U.S. Rubber Company subsequently changed its name to Uniroyal, Inc. The Stoughton plant is now owned and operated by Uniroyal Plastics Company, Inc., which is the successor in interest to Uniroyal, Inc. in this matter. Waste materials generated at the Stoughton plant which were or may have been disposed at the Site included solid chunks of vinyl and some organic solvents, such as toluene, acetone, and methyl ethyl ketone.

E. Based on U.S. EPA and WDNR investigations, hazardous substances, as defined in Section 101 (14) of CERCLA, have been determined to be present at the Site including, but not limited to, the following:

<u>Hazardous Substances</u>	<u>Highest Concentrations</u>	<u>Medium</u>
Tetra hydrofuran	1001 ppb	Ground Water
Xylene	5467 ppb	Ground Water
Ethyl benzene	887 ppb	Ground Water
Chlorobenzene	24.1 ppb	Ground Water
Toluene	126 ppb	Ground Water

In addition to contamination identified in monitoring wells, nearby private water supplies have also shown detectable levels of volatile organics. The private well on the Hagen Farm property has been impacted by acetone, tetrahydrofuran, vinyl chloride, xylene, trans-1, 2- dichloroethane, and trichloroethylene.

Private wells on the Schroeter, Vanderpan, Lee, and K-Well Insulation properties have also shown detectable levels of volatile organics. Groundwater contamination in and around the Hagen Farm Site is most likely the result of waste which had been disposed of at the Site from 1962 to 1966.

F. Based on results of U.S. EPA and WDNR investigations and the scoring of the Site pursuant to the Hazard Ranking System, which considers, among other things, populations at risk, the potential of hazardous substances being present, the potential for contamination of drinking water supplies and the destruction of sensitive ecosystems, the Site was proposed for placement on the National Priorities List ("NPL") pursuant to Section 105 of CERCLA, see 40 C.F.R. Part 300, Appendix B, and 50 Federal Register 37956 et seq. (September 18, 1985). The Respondents have submitted comments disputing the scoring of the Site and opposing its proposal for inclusion on the NPL, which comments are part of the administrative record relating to the Site.

VI. CONCLUSIONS OF LAW

Based upon information available on the effective date of this Consent Order, the Regional Administrator of the U.S. EPA, Region V, and the Secretary of the WDNR make the following conclusions of law:

A. The Hagen Farm Site is a "facility" as defined in Section 101(9) of CERCLA and Section 144.442(1)(d), Wisconsin statutes.

B. From approximately August 1962 until August 1966, "hazardous substances" as defined in Section 101(14) of CERCLA and Section 144.01(4)(m), Wisconsin statutes, were deposited, stored, disposed of, placed, or located at the Site. The past, present or potential migration of hazardous substances from the Hagen Farm Site constitutes an actual and/or threatened "release" as defined in Section 101(22) of CERCLA.

C. Each Respondent is a "person" as defined in Section 101(21) of CERCLA.

D. Each Respondent may be a liable person pursuant to Section 107 of CERCLA and a potentially responsible party for the purposes of Section 122 of CERCLA and Section 144.442(9)(c), Wisconsin statutes, for the reasons set forth in Article V of this Consent Order.

VII. DETERMINATIONS

Based on the foregoing Findings of Fact and Conclusions of Law, the Regional Administrator of the U.S. EPA, Region V, has determined that:

A. The Respondents will promptly and properly take appropriate response action at the Site by conducting a Remedial Investigation and Feasibility Study ("RI/FS") and are qualified to perform the RI/FS; and

B. The actions required by this Consent Order are in the

public interest and are consistent with the National Contingency Plan, 40 CFR Part 300, as amended, and with the Superfund Amendments and Reauthorization Act of 1986.

VIII. WORK TO BE PERFORMED

A. All work to be performed by the Respondents pursuant to this Consent Order shall be under the direction and supervision of a qualified professional engineer or certified geologist. Prior to the initiation of work at the Site, the Respondents shall notify the U.S. EPA and the WDNR, in writing, of the name, title, and qualifications of the proposed engineer or geologist, and of the names of principal contractors and/or subcontractors proposed to be used in carrying out the work to be performed pursuant to this Consent Order. Selection of any such engineer or geologist or contractor and/or subcontractor shall be subject to approval by the U.S. EPA in consultation with the WDNR.

B. Attachment I to this Consent Order provides a Statement of Work ("SOW") for the completion of the RI/FS which is incorporated into and made a part of this Consent Order.

C. The following work shall be performed:

1. Within 60 calendar days of the effective date of this Consent Order, the Respondents shall submit a work plan to the U.S. EPA and the WDNR for a complete Remedial Investigation and Feasibility Study (hereinafter RI/FS Work Plan). The RI/FS Work Plan shall be developed in conformance with the SOW, the

standards set forth in Section 121 of CERCLA, U.S. EPA "Guidance on Remedial Investigations Under CERCLA", dated May 1985, as amended (the "RI Guidance") U.S. EPA "Guidance on Feasibility Studies Under CERCLA", dated April 1985, as amended (the "FS Guidance"), and any additional guidance documents provided by the U.S. EPA.

2. The RI/FS Work Plan submittal shall include, but not be limited to, the following project plans: (1) a sampling plan; (2) a health and safety plan; (3) a plan for satisfaction of permitting requirements; (4) a quality assurance project plan; (5) provisions for the preparation of an endangerment assessment plan; and (6) a schedule for implementation of RI/FS tasks and submission of RI/FS reports. The RI/FS Work Plan shall provide, at a minimum, for the submittal of a preliminary and final Remedial Investigation Report, to be prepared in accordance with the RI Guidance, and a preliminary and final Feasibility Study Report, to be prepared in accordance with the FS Guidance.

3. The RI/FS Work Plan shall be subject to review, modification, and approval by the U.S. EPA in consultation with the WDNR according to the procedures set forth herein and subject to the Dispute Resolution provisions of this Consent Order.

4. Within 45 calendar days of receipt of the RI/FS Work Plan, the U.S. EPA Project Coordinator shall notify the Respondents, in writing, of approval or disapproval of the RI/FS Work Plan, or any part thereof. In the event that a longer review period is required, the U.S. EPA Project Coordinator shall

notify the Respondents and the WDNR of that fact within 30 calendar days of receipt of the Work Plan. In the event of any disapproval, the U.S. EPA shall specify, in writing, any deficiencies and required modifications to the RI/FS Work Plan, along with a reasonable time period taking into consideration the amount and type of effort projected to be required to address U.S. EPA's comments, within which a revised Work Plan shall be submitted.

5. Within the time specified in the U.S. EPA RI/FS Work Plan disapproval, the Respondents shall submit a revised RI/FS Work Plan to the U.S. EPA and the WDNR which incorporates the U.S. EPA modifications or provide a notice of dispute pursuant to Article XIX.

6. In the event U.S. EPA disapproves of the RI/FS Work Plan that has been resubmitted pursuant to paragraph 5 above or subsequent to the resolution of disputes pursuant to Article XIX, the U.S. EPA retains the right to conduct a complete RI/FS and/or to enforce the terms of this Consent Order.

7. The Respondents shall proceed promptly to implement the work detailed in the RI/FS Work Plan if and when the RI/FS Work Plan is fully approved by the U.S. EPA. Unless otherwise directed by the U.S. EPA, the Respondents shall not commence field activities until approval by the U.S. EPA of the RI/FS Work Plan. The fully approved RI/FS Work Plan shall be deemed incorporated into and made an enforceable part of this Consent Order. In order to assure that the RI/FS will be conducted in full compliance

with CERCLA, the Work Plan shall conform with all relevant portions of CERCLA, which includes, but is not limited to Section 121 ("clean-up standards"). All work conducted pursuant to this Consent Order shall be in accordance with the National Contingency Plan, the RI Guidance, the FS Guidance, and the requirements of this Consent Order, including the standards, specifications and schedule contained in the RI/FS Work Plan.

IX. PLANS AND REPORTS

A. The Respondents shall provide a preliminary and final Remedial Investigation Report and Feasibility Study Report and any other plans or reports required by the RI/FS Work Plan to the U.S. EPA and the WDNR according to the schedule contained in the RI/FS Work Plan.

B. The U.S. EPA and the WDNR shall review and the U.S. EPA shall approve the preliminary and final Remedial Investigation Report, the preliminary and final Feasibility Study Report and any other preliminary or final plans or reports specified in the RI/FS Work Plan as requiring U.S. EPA approval.

C. If the U.S. EPA, in consultation with the WDNR, disapproves any preliminary or final plan or report, the U.S. EPA shall specify, in writing, any deficiencies and required modifications and the Respondents shall either submit a revised plan or report to the U.S. EPA within 45 days or such longer period as the U.S. EPA Project Coordinator may establish, which plan or report shall incorporate any U.S. EPA modifications or

additions or invoke the Dispute Resolution provision of Article XIX.

D. In the event of subsequent disapproval of any revised plan or report and after completion of any dispute resolution proceedings properly invoked by Respondents, the U.S. EPA retains the right to perform additional studies, to conduct a complete or partial RI/FS, and/or to enforce the terms of this Consent Order.

E. The Respondents shall provide monthly written progress reports to the U.S. EPA and the WDNR. At a minimum, these monthly written progress reports shall include the following:

1. All results of sampling and tests and all other raw data produced during the month pursuant to the implementation of this Consent Order;
2. A description of the activities completed during the past month taken toward achieving compliance with the Consent Order, as well as such actions, data, and plans which are scheduled for the next month; and
3. Target and actual completion dates for each element of activity, including the project completion, and an explanation of any deviation from the schedules in the RI/FS Work Plan.

F. The monthly written progress reports shall be submitted to the U.S. EPA and the WDNR by the tenth business day of each full month following the date of commencement of the work detailed in the RI/FS Work Plan.

X. ADDRESS FOR ALL CORRESPONDENCE

Five copies of all documents, including reports, approvals, disapprovals and other correspondences to be submitted pursuant to this Consent Order shall be sent by certified mail

to the following addresses, or to such other addresses as the Respondents, the WDNR or the U.S. EPA may hereafter designate in writing:

- A. Documents to be submitted to the U.S. EPA should be sent to:

Doug Ballotti
Hagen Farm Site
Remedial Project Manager
Hazardous Waste Enforcement Branch (5HE-12)
U.S. Environmental Protection Agency
Region V
230 S. Dearborn Street
Chicago, Illinois 60604

- B. Documents to be submitted to the WDNR should be sent to:

Mark Geisfeldt
Hagen Farm Site
Project Coordinator
Wisconsin Department of Natural Resources
P.O. Box 7921
Madison, Wisconsin 53707-7921

- C. Documents to be submitted to the Respondents should be sent to:

Robert Vallis
Hagen Farm Site
Project Coordinator
10712 S. 124th Street
Franklin, Wisconsin 53132

XI. ADDITIONAL WORK

A. In the event that the U.S. EPA in consultation with the WDNR, or the Respondents determine that additional work, including remedial investigatory work and/or engineering evaluation, is necessary to accomplish the objectives of the RI/FS, notification of such additional work shall be provided to each of the other parties.

B. Any additional work determined to be necessary by the Respondents shall be subject to approval by the U.S. EPA, in consultation with the WDNR.

C. Any additional work determined to be necessary by the Respondents or determined to be necessary by the U.S. EPA after consultation with the Respondents and the WDNR, shall be completed by the Respondents in accordance with the standards, specifications, and schedule determined or approved by the U.S. EPA in consultation with the WDNR.

D. Any additional work determined to be necessary by U.S. EPA but disputed by Respondents shall be subject to the Dispute Resolution provisions of Article XIX.

XII. COMPLIANCE WITH APPLICABLE LAWS

All work undertaken by the Respondents pursuant to this Consent Order shall be performed in compliance with all applicable Federal and State laws and regulations, including all Occupational Health and Safety Administration and Department of Transportation regulations. The Respondents shall be responsible

for obtaining all State or local permits which are necessary for the performance of any work hereunder.

XIII. ACCESS

A. To the extent that the Site or other areas where work is to be performed hereunder is presently owned by parties other than those bound by this Consent Order, the Respondents shall obtain, or shall use reasonable efforts to obtain, access agreements from the present owners within thirty (30) calendar days of approval of the RI/FS Work Plan. Such agreements shall provide access for the U.S. EPA, the WDNR and authorized representatives of the U.S. EPA and the WDNR, as specified below. In the event that such access agreements are not obtained within the time referenced above, the Respondents shall so notify the U.S. EPA and the WDNR. The U.S. EPA reserves the right to terminate this Consent Order should the Respondents' inability to gain access to the Site or other areas materially affect the Respondents' ability to perform the work required herein.

B. Authorized representatives of the U.S. EPA and the WDNR shall be allowed access to the Site and other areas by the Respondents, and as part of any agreement obtained under paragraph A above, for purposes including, but not limited to: inspecting records, operating logs and contracts related to the Site; reviewing the progress of the Respondents in carrying out the terms of this Consent Order; conducting such tests, inspections, and sampling as the U.S. EPA, in consultation

with the WDNR, may deem necessary; using a camera, sound recording, or other documentary type equipment; and verifying the data submitted to the U.S. EPA and the WDNR by the Respondents hereunder. The Respondents shall permit such authorized representatives to inspect and copy all records, files, photographs, documents, and other writings, including all sampling and monitoring data, which pertain to this Consent Order, subject to Paragraph C of Article XV of this Consent Order. All persons with access to the Site pursuant to the Consent Order shall comply with approved health and safety plans.

C. Nothing herein shall be construed as restricting the inspection or access authority of the U.S. EPA or the WDNR under any law or regulation.

XIV. PROJECT COORDINATORS

A. The U.S. EPA designated Project Coordinator for the Site is Doug Ballotti. The WDNR designated Project Coordinator is Mark Geisfeldt. Respondent's designated Project Coordinator is Robert Vallis. Each Project Coordinator shall be responsible for overseeing the implementation of this Consent Order. The U.S. EPA Project Coordinator will be the U.S. EPA designated representative at the Facility. To the maximum extent possible, communications between the Respondents, the WDNR and the U.S. EPA, and all documents, reports, approvals and other correspondences concerning the activities performed pursuant to the terms and conditions of this Consent Order, shall be directed through the

Project Coordinators. During implementation of the RI/FS Work Plan, the Project Coordinators shall, whenever possible, operate by consensus and shall attempt in good faith to resolve disputes informally through discussion of the issues.

B. The U.S. EPA, the WDNR and the Respondents shall each have the right to change their respective Project Coordinators. Such a change shall be accomplished by notifying the other party in writing at least ten (10) calendar days prior to the change.

C. The U.S. EPA Project Coordinator shall have the authority vested in an On-Scene Coordinator and a Remedial Project Manager (OSC, RPM) by the National Contingency Plan, 40 CFR Part 300, as amended, including the authority to halt, conduct, or direct any work required by this Consent Order, or to direct any response action undertaken by the U.S. EPA when conditions at the Site may present an imminent and substantial endangerment to the public health or welfare or the environment. In the event that the U.S. EPA Project Coordinator halts work pursuant to this paragraph, the Respondents shall obtain a commensurate modification of the schedule or work described in the RI/FS Work Plan and this Consent Order unless such work stoppage was due to Respondents' failure to properly comply with the terms of this Consent Order. Where the U.S. EPA Project Coordinator halts work pursuant to this paragraph and such work stoppage is due to Respondents' failure to properly comply with the terms

of this Consent Order, the Respondents may request a modification of the schedule or work described in the RI/FS Work Plan and this Consent Order.

D. The absence of the U.S. EPA or WDNR Project Coordinator from the Site shall not be cause for stoppage of work.

E. The Project Coordinator for the Respondents shall be on-site during all hours of site work and shall be on call during the pendency of this Consent Order.

XV. SAMPLING AND DATA/DOCUMENT AVAILABILITY

A. The Respondents, U.S. EPA and WDNR shall make the results of all sampling and/or tests or other data generated by them, or on behalf of them, pursuant to implementation of this Consent Order, available to each other. All results generated by Respondents shall be submitted in written monthly progress reports as required by Article IX of this Consent Order.

B. Upon request, the U.S. EPA, the WDNR and/or the Respondents shall provide split or duplicate samples to each other of any samples collected pursuant to the implementation of this Consent Order. The Respondents, U.S. EPA and WDNR shall each notify each other at least five (5) calendar days in advance of any sample collection activity, provided, however, that if five day advance notice of sample collection activity is not possible, Respondents, U.S. EPA and WDNR shall give such

advance notice to enable each party to have a representative present during said sample collection activity.

C. Pursuant to applicable Federal laws and regulations (Section 104(e) of CERCLA and 40 CFR Part 2) and applicable Wisconsin laws and regulations (Section NR 2.19 Wisconsin Administrative Code), the Respondents may assert a confidentiality claim with respect to any or all of the information requested or submitted pursuant to the terms of this Consent Order. Such an assertion must be adequately substantiated when made. Analytical data and other information described in Section 104(e)(7)(f) of CERCLA shall not be claimed as confidential by the Respondents. Information determined to be confidential by the U.S. EPA and/or Wisconsin in accordance with applicable federal and/or state laws and regulations will be afforded the full protection provided by such laws and regulations. If no confidentiality claim accompanies information when it is submitted to the U.S. EPA and the WDNR, or if information claimed as confidential is determined by the U.S. EPA or the WDNR not to be confidential, the information may be made available to the public by the U.S. EPA or the WDNR.

XVI. QUALITY ASSURANCE

A. The Respondents shall use quality assurance, quality control, and chain of custody procedures in accordance with U.S. EPA "Interim Guidelines and Specifications for Preparing Quality Assurance Project Plans" QAMS-005-80 (U.S. EPA, 1980c) throughout

all data collection activities.

B. The Respondents shall consult with the U.S. EPA and WDNR Project Coordinators in planning for, and prior to, all sampling and analysis as detailed in the RI/FS Work Plan. In order to provide quality assurance and maintain quality control with respect to all samples collected pursuant to this Consent Order, the Respondents shall:

1. Ensure that the U.S. EPA and WDNR personnel and/or the U.S. EPA and WDNR authorized representatives are allowed access to any laboratories and personnel utilized by the Respondents for analyses;

2. Ensure that all sampling and analyses are performed according to U.S. EPA methods or other methods deemed satisfactory by the U.S. EPA; and

3. Ensure that any laboratories utilized by the Respondents for analyses participate in a U.S. EPA quality assurance/ quality control program equivalent to that which is followed by the U.S. EPA, and which is consistent with U.S. EPA document QAMS-005-80. As part of such a program, and upon request by the U.S. EPA, such laboratories shall perform analyses of samples provided by the U.S. EPA to demonstrate the quality of analytical data for each such laboratory.

XVII. FORCE MAJEURE

A. The Respondents shall cause all work to be performed

within the time limits set forth herein, unless performance is delayed by events which constitute a force majeure. For purposes of this Consent Order, a "force majeure" is an event beyond the reasonable control of the Respondents which delays performance of any obligations required by this Consent Order. Increases of costs shall not be considered circumstances beyond the control of the Respondents.

B. The Respondents shall notify the U.S. EPA and the WDNR in writing no later than two (2) business days after any event which the Respondents contend is a force majeure. Such notification shall describe the anticipated length of the delay, the cause or causes of the delay, the measures taken and to be taken by the Respondents to minimize the delay, and the timetable by which these measures will be implemented. The Respondents shall have the burden of demonstrating that the event is a force majeure.

C. If the U.S. EPA, in consultation with the WDNR, agrees that a delay is attributable to a force majeure, the time period for performance under this Consent Order shall be extended for the time period attributable to the event constituting the force majeure. U.S. EPA shall provide Respondents with a written decision concerning the "force majeure" within seven calendar days of receiving notification from Respondents pursuant to Paragraph B above.

D. In the event that U.S. EPA has not notified Respondents of its decision within the time period specified herein, Respondents

shall not be liable for stipulated penalties attributable to the period between the notification of the U.S. EPA of the event and receipt by Respondents of the notification required by Paragraph C, above.

E. Any U.S. EPA determination that an event does not constitute a "force majeure" event shall be subject to the Dispute Resolution provisions of Article XIX.

XVIII. STIPULATED PENALTIES

A. Respondents shall be liable for payment into the Hazardous Substances Response Trust Fund administered by the U.S. EPA of the sums set forth below as stipulated penalties for each week or part thereof that the Respondents fail to submit a report or document or comply with a schedule in accordance with the requirements contained in this Consent Order, unless U.S. EPA determines that such delay is attributable to a force majeure as defined in Article XVII above. Subject to the Dispute Resolution provisions of Article XIX, such sums shall be due and payable within fifteen (15) days of receipt of notification from the U.S. EPA that penalties are being assessed. These stipulated penalties shall accrue in the amount of \$1000.00 for the first week or part thereof, and \$2,000.00 for each week or part thereof thereafter.

B. The stipulated penalties set forth in paragraph A of this section shall not preclude the U.S. EPA or the WDNR from electing to pursue any other remedy or sanction because of the

Respondents' failure to comply with any of the terms of this Consent Order, including a suit to enforce the terms of this Consent Order. U.S. EPA or the WDNR shall not be precluded from seeking statutory penalties in lieu of stipulated penalties up to the amount authorized by law in the event of Respondents' failure to comply with any requirements of this Consent Order.

XIX. DISPUTE RESOLUTION

A. The parties shall use their best efforts to in good faith resolve all disputes or differences of opinion informally. If, however, disputes arise concerning this Consent Order which the parties are unable to resolve informally, the Respondents shall present a written notice of such dispute to the U.S. EPA and the WDNR, which shall set forth specific points of dispute, the position of the Respondents and the technical basis therefor, and any actions which the Respondents consider necessary.

B. Within ten (10) calendar days of receipt of such a written notice, the U.S. EPA shall provide a written response to the Respondents setting forth its position and the basis therefor. During the five (5) business days following receipt of the response, the U.S. EPA, the WDNR and the Respondents shall attempt to negotiate in good faith a resolution of their differences.

C. Following the expiration of the time periods described in Paragraph B above, if the U.S. EPA concurs with the position

of the Respondents, the Respondents and the WDNR shall be so notified in writing and this Consent Order shall be modified to include any necessary extensions of time or variances of work. If the U.S. EPA does not concur with the position of the Respondents, the U.S. EPA shall resolve the dispute, based upon and consistent with the terms of this Consent Order, and shall provide written notification of such resolution to the Respondents.

D. The pendency of dispute resolution set forth in this Article shall not affect the time period for completion of work and/or obligations to be performed under this Consent Order, except that upon mutual agreement of the U.S. EPA and Respondents, any time period may be extended not to exceed the actual time taken to resolve the dispute. Elements of work and/or obligations not affected by the dispute shall be completed in accordance with the schedule contained in the RI/FS Work Plan.

E. Upon resolution of any dispute, whether informally or using the procedures in this Article, any additions or modifications required as a result of such dispute resolution shall immediately be incorporated, if necessary, into the appropriate plan or procedure and into this Consent Order. The Respondents shall proceed with all remaining work according to the modified plan or procedure.

XX. COMMUNITY RELATIONS AND PUBLIC COMMENT

A. The Respondents shall cooperate with the U.S. EPA and the WDNR in providing RI/FS information to the public. As

requested by the U.S. EPA or the WDNR, the Respondents shall participate in the preparation of all appropriate information disseminated to the public and in public meetings which may be held or sponsored by the U.S. EPA or the WDNR to explain activities at or concerning the Site, including the findings of the RI/FS.

XXI. RECORD PRESERVATION

The Respondents agree to preserve, during the pendency of this Consent Order, and for five (5) years after termination of this Consent Order, all records and documents in the possession of the Respondents, or in the possession of any division, employees, agents, accountants, contractors, or attorneys of the Respondents, which relate in any way to the Site. The Respondents shall notify U.S. EPA in writing at least 30 days prior to the destruction of any documents or records relating to the Site. Upon request by the U.S. EPA or the WDNR, the Respondents shall make available to the U.S. EPA or the WDNR such non-privileged records, or copies of any such records, subject to Paragraph C of Article XV of this Consent Order.

XXII. CERCLA FUNDING

A. The Respondents waive any claims or demands for compensation or payment under Sections 111 and 112 of CERCLA against the United States or the Hazardous Substance Response Trust Fund established by Section 221 of CERCLA for or arising out of any activity performed or expenses incurred pursuant to this Consent Order.

B. This Consent Order does not constitute any decision on preauthorization of funds under Section 111(a)(2) of CERCLA.

XXIII. RESERVATION OF RIGHTS

A. The U.S. EPA, the WDNR and Respondents reserve all rights and defenses that they may have pursuant to any available legal authority.

B. Nothing herein shall waive the right of the U.S. EPA to enforce this Consent Order, or to take action pursuant to Sections 104, 106(a) and 107 of CERCLA. The U.S. EPA and the WDNR reserve the right to take any enforcement action pursuant to CERCLA and/or any available legal authority, including the right to seek injunctive relief, monetary penalties, and punitive damages. In addition, the U.S. EPA reserves the right to undertake any remedial investigation/feasibility study work if the Respondents fail to comply with this Consent Order, and/or undertake any other removal, remedial and/or response actions not within the scope of this Consent Order relating to the Site, and to seek recovery from the Respondents for any costs incurred in undertaking such actions.

C. Nothing herein is intended to release, discharge, or in any way affect any claims, causes of action or demands in law or equity which the parties may have against any person, firm, partnership or corporation not a party to this Consent Order for any liability it may have arising out of, or relating in any

way to, the generation, storage, treatment, handling, transportation, release or disposal of any materials, hazardous substances, hazardous wastes, contaminants, or pollutants at, to, or from the Site. The parties to this Consent Order expressly reserve all rights, claims, demands, and causes of action they have against any and all other persons and entities who are not parties to this Consent Order, and as to each other for matters not covered hereby.

D. The U.S. EPA and the WDNR recognize that the Respondents may have the right to seek contribution, indemnity and/or any other available remedy against any person found to be responsible or liable for contributions, indemnity or otherwise for any amounts which have been or will be expended by the Respondents in connection with the Site.

E. Nothing herein shall be construed to release the Respondents from any liability for failure of the Respondents to perform the RI/FS in accordance with the RI/FS Work Plan attached hereto and incorporated herein. The parties further expressly recognize that except as provided in Article XXIX below, this Consent Order and the successful completion and approval of the RI/FS do not represent satisfaction, waiver, release, or covenant not to sue, of any claim of the United States or the State of Wisconsin against the Respondents relating to the Site, (including claims to require Respondents to undertake further response actions and claims to seek recovery of unreimbursed costs pursuant to Section 107 of CERCLA) except that,

upon receipt of written notice of satisfaction as provided in Article XXVIII of this Consent Order, Respondents shall have no further obligations under this Consent Order.

F. Nothing herein is intended to be a release or settlement of any claim for personal injury or property damage by any person not a party to this Consent Order.

G. Nothing in this Consent Order is intended by the parties to be an admission of law or fact by the Respondents. In agreeing to the issuance of and entry into this Consent Order, the Respondents do not admit the facts, determinations, findings or allegations herein, and specifically do not admit any liability with respect to the Site.

XXIV. REIMBURSEMENT OF COSTS

A. The U.S. EPA and the State of Wisconsin shall provide the Respondents with an accounting of all response costs incurred by the U.S. EPA and the WDNR not inconsistent with the National Contingency Plan in connection with the Site prior to the effective date of this Consent Order. Within sixty (60) calendar days of receipt of such accounting, the Respondents shall pay to the U.S. EPA and the WDNR the total sum of their response costs incurred prior to the effective date of this Consent Order.

B. At the end of each twelve (12) month period beginning

with the effective date of this Consent Order, the U.S. EPA and the WDNR shall submit an accounting to the Respondents of all oversight costs incurred by the U.S. EPA and the WDNR with respect to the Site during the previous twelve (12) month period including, but not limited to, the costs incurred by the U.S. EPA in having a qualified person oversee the conduct of this RI/FS pursuant to Section 104(a) of CERCLA. Within sixty (60) calendar days of receipt of each such accounting, the Respondents shall remit a check to the U.S. EPA and/or the WDNR for the full amount of their respective costs.

C. Payment to the U.S. EPA for response and oversight costs incurred by the U.S. EPA shall be made to the order of the Hazardous Substance Response Trust Fund forwarded to the U.S. EPA, Superfund Accounting, P.O. Box 371003M, Pittsburgh, Pennsylvania 15251, Attn: Superfund Collection Office. Copies of all payments to the U.S. EPA shall be provided at the time of such payments to the U.S. EPA Project Coordinator and to: U.S. EPA, Region V, SWER Branch, Attention: Ms. Isalee Coleman, Office of Regional Counsel, 5CS-16, 230 South Dearborn Street, Chicago, Illinois 60604.

D. Payment to the WDNR for response and oversight costs incurred by the State of Wisconsin shall be payable to the Wisconsin Department of Natural Resources, and forwarded to: Wisconsin Department of Natural Resources, Bureau of Solid

Waste Management, SW/3, Environmental Response and Restoration Unit, P.O. Box 7921, Madison, Wisconsin, 53707-7921. A copy of the transmittal letter and check shall be sent to the WDNR Project Coordinator.

E. The U.S. EPA and the WDNR reserve the right to bring an action against the Respondents for recovery of any past and future costs incurred by the United States or the State of Wisconsin and not reimbursed pursuant to this Consent Order in connection with any response activities conducted or to be conducted at the Site.

XXV. INDEMNIFICATION OF THE UNITED STATES

A. The Respondents agree to indemnify and save and hold the United States Government and the State of Wisconsin Government, their agencies, departments, agents, and employees, harmless from any and all claims or causes of action arising from, or on account of, acts or omissions of the Respondents, their officers, employees, receivers, trustees, agents, or assigns, in carrying out the activities pursuant to this Consent Order.

B. Neither the U.S. EPA nor the WDNR is a party to any contract involving the Respondents at the Site.

XXVI. PUBLIC COMMENT AND EFFECTIVE DATE
OF ADMINISTRATIVE ORDER

Within fifteen (15) calendar days of the date of the execution of this Consent Order, the U.S. EPA shall announce the

availability of this Consent Order to the public for review and comment. The U.S. EPA shall accept comments from the public for, at a minimum, a thirty (30) calendar day period after such announcement. At the end of the comment period, the U.S. EPA, in consultation with the WDNR, shall review all such comments and shall either:

- a) determine that the Consent Order should be made effective in its present form, in which case the U.S. EPA Project Coordinator shall so notify the Respondents in writing, and the Consent Order shall become effective on the date the Respondents receive such notification; or
- b) determine that modification of the Consent Order is necessary, in which case the U.S. EPA Project Coordinator will inform the Respondents as to the nature of all required changes. If the Respondents agree to the modifications, the Consent Order shall be so modified and shall become effective upon the date that Respondents receive notification that the Consent Order has been signed by the Respondents, U.S. EPA and WDNR.

In the event that the Respondents do not agree to modifications required by the U.S. EPA as a result of public comment, this Consent Order may be withdrawn by the U.S. EPA. In such an event, the U.S. EPA and the WDNR reserve all rights to take

such actions as they deem necessary and the Respondents reserve all rights and defenses that they may have.

XXVII. SUBSEQUENT AMENDMENT

In addition to the procedures set forth in Articles XI, XIV, and XVII of this Consent Order, this Consent Order may be amended by mutual agreement of the U.S. EPA, the WDNR and the Respondents. Any amendment of this Consent Order shall be in writing, signed by the U.S. EPA, the WDNR and Respondents, and shall have as the effective date that date on which Respondents receive notice from U.S. EPA that such amendment has been signed by the U.S. EPA.

XXVIII. TERMINATION AND SATISFACTION

A. The provisions of this Consent Order (except for those found at Article XXI) shall be deemed satisfied upon receipt by the Respondents of written notice from the U.S. EPA that the Respondents have demonstrated that all of the terms of this Consent Order, including any additional work, modifications or amendments, have been completed in accordance with the terms hereof to the satisfaction of the U.S. EPA in consultation with the WDNR. Upon such demonstration by the Respondents, said written notice shall not be unreasonably withheld. In the event the U.S. EPA takes over performance of the entire RI/FS prior to termination and satisfaction of this Consent Order, Respondent's future obligations under this Consent Order shall cease.

XXIX COVENANT NOT TO SUE

Except as otherwise provided herein, from the date of this Consent Order, for as long as the terms herein are complied with, and upon or after termination of this Consent Order pursuant to provisions of Paragraph XXVIII (Termination and Satisfaction) and reimbursement to U.S. EPA and WDNR of amounts due as stipulated penalties and oversight costs under this Consent Order, U.S. EPA and WDNR covenant not to sue Respondents regarding work satisfactorily performed by Respondents hereunder or for amounts actually reimbursed to U.S. EPA or WDNR by Respondents hereunder, subject to rights reserved in Section XXIV (Reimbursement of Costs) regarding past and future response costs. Work shall be deemed to have been satisfactorily performed if it was performed in accordance with all applicable requirements as contained in Section IV (Statement of Purpose) in effect at the time of the performance of the work.

IT IS SO AGREED:

BY: Waste Management of Wisconsin, Inc.

6/30/87
Date

BY: Uniroyal Plastics Co. Inc.

Date

XXIX COVENANT NOT TO SUE

Except as otherwise provided herein, from the date of this Consent Order, for as long as the terms herein are complied with, and upon or after termination of this Consent Order pursuant to provisions of Paragraph XXVIII (Termination and Satisfaction) and reimbursement to U.S. EPA and WDNR of amounts due as stipulated penalties and oversight costs under this Consent Order, U.S. EPA and WDNR covenant not to sue Respondents regarding work satisfactorily performed by Respondents hereunder or for amounts actually reimbursed to U.S. EPA or WDNR by Respondents hereunder, subject to rights reserved in Section XXIV (Reimbursement of Costs) regarding past and future response costs. Work shall be deemed to have been satisfactorily performed if it was performed in accordance with all applicable requirements as contained in Section IV (Statement of Purpose) in effect at the time of the performance of the work.

IT IS SO AGREED:

BY: Waste Management of Wisconsin, Inc.

Date

BY: Uniroyal Plastics Co. Inc.

6/22/87.
Date

IT IS SO ORDERED AND AGREED:

BY:

Carrol D. Besadny
Secretary
Wisconsin Department of Natural Resources

7-1-87
Date

BY:

Valdas V. Adamkus
Regional Administrator

7-27-87
Date

EFFECTIVE DATE: _____

DRAFT STATEMENT OF WORK FOR CONDUCTING A
REMEDIAL INVESTIGATION AND FEASIBILITY STUDY AT THE
HAGEN FARM LANDFILL SITE,
DANE COUNTY, WISCONSIN

This document presents the Statement of Work (SOW) to conduct a Remedial Investigation and Feasibility Study (RI/FS) at the Hagen Farm Sanitary Landfill NPL site located in Dane County, Wisconsin. The purpose of this SOW is to provide the direction and intent of the RI/FS. Within 60 days of the effective date of the Consent Order, a RI/FS Work Plan will be submitted which will provide detailed guidance on the execution of the RI/FS.

The purpose of the RI is to determine the nature and extent of contamination at the Hagen Farm Landfill site. The purpose of the FS is to develop and evaluate appropriate remedial action alternatives based on the RI data and report. All personnel, materials, and services required to perform the RI/FS will be provided by the Potentially Responsible Parties (PRP).

The tasks described herein are grouped into the following three categories:

- Plans and Management;
- Remedial Investigation (RI); and
- Feasibility Study (FS).

The Work Plan that will be developed pursuant to this SOW will present a phased, iterative approach that recognizes the interdependency of the RI and FS. The overall organization and interactive nature of this approach are illustrated in Figure 1. Please note that the activity sequence depicted in Figure 1 is not consistent with the topical sequence of presentation in this SOW.

The primary intent of the phased approach is to minimize the need for conducting post-FS or supplemental RI/FS activities by thorough characterization of the migration pathways and early identification of the site

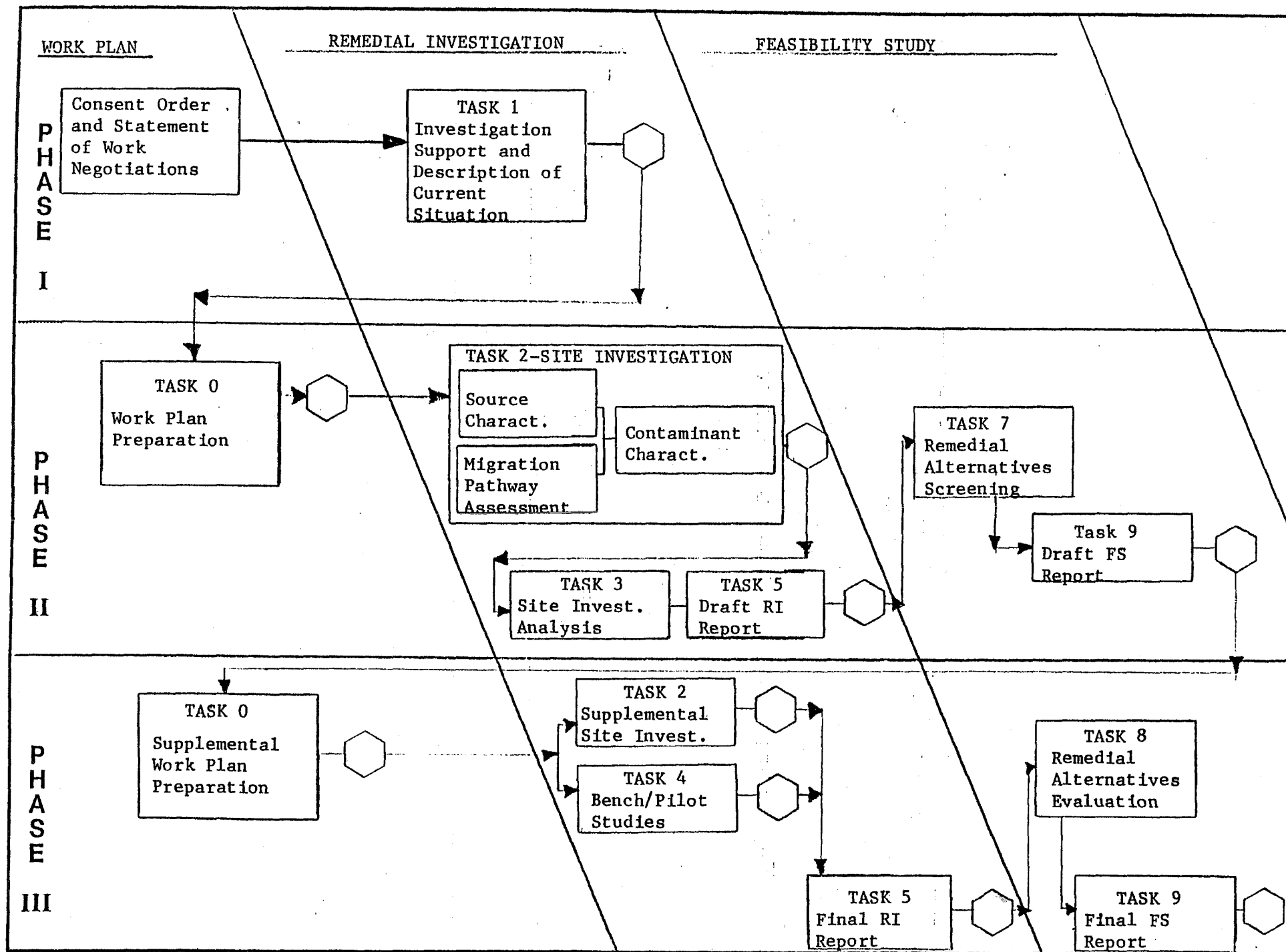


FIGURE 1. WMI'S PROPOSED REMEDIAL SELECTION PROCESS IN ACCORDANCE WITH SARA

specific data requirements associated with the applicable remedial technology.

Brief discussions of the major RI/FS tasks are presented, by major topical categories, in the following sections.

PLANS AND MANAGEMENT

TASK 0 - WORK PLAN PREPARATION

A RI/FS Work Plan will be prepared for the Hagen Farm Landfill site that details the technical approach, personnel requirements, and schedule for each task described in this SOW. The schedule will show the implementation of tasks and submission of deliverables in weeks subsequent to regulatory (e.g., U.S. EPA and WDNR) approval and acceptance of prior deliverables. Incorporated in this Work Plan will be the following specific plans:

Sampling Plan

A Sampling Plan that addresses all data acquisition activities will be prepared. The plan will contain a statement of sampling objectives, specification of equipment, required analyses, sample types, and sample locations and frequency. The plans will address specific hydrologic, hydro-geologic, and air transport characterization methods including, but not limited to, geologic mapping, geophysics, field screening, drilling and well installation, flow determination, and sampling. The application of these methods will be described for each major subtask within the site investigation (e.g., waste characterization, migration pathway assessment, and contaminant characterization). The plan will also identify the data requirements of specific remedial technologies which may be necessary to evaluate remedial alternatives in the FS.

Quality Assurance Project Plan

A Quality Assurance Project Plan (QAPP), prepared in accordance with current U.S. EPA guidance, will be appended to the Sampling Plan. The QAPP will specify the analytical methodologies and protocols to be used at the various stages of the site investigation. Specific methodologies will be defined for field screening of samples, waste and contaminant characterizations, and bench and pilot treatability testing. Currently, it is anticipated that the U.S. EPA Contract Laboratory Program protocols will be followed for all

waste and contaminant characterization analyses; however, unforeseeable circumstances may necessitate the use of special analytical methods.

Health and Safety Plan

A Health and Safety Plan will be prepared to address hazards that the investigation activities may present to the investigation team and to the surrounding community. The plan will conform to all applicable regulatory requirements and guidance, including the U.S. EPA Standard Operating Safety Guides, and will detail personnel responsibilities, protective equipment, procedures and protocols, decontamination, training, and medical surveillance. The plan will identify problems or hazards that may be encountered and their solutions. Procedures for protecting third parties, such as visitors or the surrounding community, will also be provided.

Endangerment Assessment Plan

An Endangerment Assessment Plan will be developed for quantifying the risks posed by the Hagen Farm Landfill and for analyzing the public health impacts of the remedial alternatives. The methodology presented in this plan will conform to the Superfund Public Health Evaluation Manual (ICF, 1986).

Data Management Plan

A Data Management Plan will be developed to document and track investigation data and results. The plan will identify and establish laboratory and data documentation materials and procedures, project file requirements, and project-related progress reporting procedures and documents.

ATSDR Health Assessment

The Work Plan for the site shall also provide for collection of adequate information to support an ATSDR Health Assessment which is required by SARA. Since the health assessment will be prepared by ATSDR, all draft Work Plans and support documents will be submitted for ATSDR review and comment to ensure that their needs and requirements are being met. In the event that

the health assessment has already been completed by ATSDR, the RI report will include and address the findings of that report.

As shown on Figure 1, the preparation of the project plan will be preceded by an evaluation of the existing information and initiation of investigative support activities (Task 1).

The Work Plan will be submitted in accordance with the schedule defined in Section VIII (Work to be Performed) of the Consent Order. Specifically, the RI/FS Work Plan will be developed and implemented in conformance with all provisions of the Consent Order and this SOW, and the standards set forth in the following statutes, regulations, and guidance:

- Section 121 of SARA;
- U.S. EPA "Guidance on Remedial Investigations under CERCLA," dated May 1985, as amended;
- U.S. EPA "Guidance on Feasibility Studies under CERCLA," dated May 1985, as amended;
- National Contingency Plan, dated November 1985, as amended; and
- Any additional guidance documents provided by the U.S. EPA.

REMEDIAL INVESTIGATION

Objectives and Scope

The objectives of the RI are to:

- Characterize the source(s) of potential contamination;
- Characterize the hydrogeologic setting to determine most likely contaminant migration pathways and physical features that could effect potential remedial actions;
- Determine the migration rates, extent, and characteristics of any contamination that may be present at the site; and
- Gather data and information to the extent necessary and sufficient to quantify risk to public health and the environment and to support the development and evaluation of viable remedial alternatives in the FS.

The remedial investigation consists of six tasks:

- Task 1: Description of Current Situation and Investigative Support
- Task 2: Site Investigation
- Task 3: Site Investigation Analysis
- Task 4: Bench/Pilot Testing Studies
- Task 5: Reports
- Task 6: Community Relations Support

A description of each of these tasks is presented in the following section.

TASK 1 - INVESTIGATIVE SUPPORT AND DESCRIPTION OF CURRENT SITUATION

Site Mapping

An accurate topographic map of appropriate working scale will be prepared. The base map will have a scale of 1 inch to 100 feet (1" = 100') and 2-foot contour intervals. A base map of the site will be prepared from this topographic map. The base map will illustrate the locations of wetlands, floodplains, water, features, drainage patterns, tanks, buildings, utilities, paved areas, easements, right-of-ways, and other pertinent features. Larger scale maps will be produced from the base mapping, as necessary.

Surveying will be required to establish horizontal and vertical controls for sites of the work relative to the National Geodetic Vertical Datum of 1929. In addition to the topographic map, a grid plan will be prepared using the base map and grid overlay at a nominal scale of the map. This grid plan will show the location of existing monitoring wells, sampling locations, water supply wells.

A legal description of the property will be reviewed and field verified. The intent is not to perform a boundary survey, but to locate the boundaries so that the future activities do not carry over onto adjacent property without proper permission.

Meets and Bound

A legal description of the site will be assembled from existing county and township records and results of the site survey.

Access Arrangements

The necessary arrangements will be made to facilitate access to the site and surrounding parcels. These arrangements will include negotiating access agreements with the appropriate landowners and the demarcation clearance of all buried utilities and construction of access roads.

Preparation of Support Facilities

Arrangements will be made to construct the appropriate support facilities and/or procure the equipment necessary to perform a hazardous site investigation. This includes preparation of decontamination facilities, utility hook-ups, and site access control stations.

Description of Current Situation

The background information pertinent to the site and the environmental concerns will be described and the purpose of the RI will be further detailed. The data gathered during previous investigations will be reviewed and evaluated. Regional information will be obtained from available USGS and Wisconsin Geologic and Natural History Survey reports. The existing site information that will be reviewed will include but will not necessarily be limited to:

- Wisconsin Department of Natural Resource (WDNR) files
- Dane County Soil Conservation Service reports
- Various consultant files
- Aerial photographs
- Historical water quality data
- U.S. and Wisconsin Geological Survey files
- Disposal records (if available)
- Administrative record for Dane County Circuit Court Case No. 83-CV-1116

In addition to this literature search, on-site activities may be used to confirm and/or update certain information. For example, existing monitoring wells may be inspected to determine if they are functional. Also, the location and status of selected water supply wells may be field verified.

Information and data that are gathered during these initial steps will be used to generate a Preliminary Site Evaluation Report that will address the following:

Site Background

A summary of pertinent boundary conditions, general site physiography, hydrology, and geology. A complete site history as it pertains to waste disposal activities and ownership transfer will also be prepared.

Nature and Extent of the Problem

A summary of actual or potential on-site and off-site health and environmental affects will be prepared. Threats or potential threats to public health will be emphasized.

History of Response Actions

A history of response actions as conducted by local, state, or private parties will be prepared.

Definition of Boundary Conditions

Site boundary conditions will be established to limit the areas of investigation. The boundaries will be set so that the on-site activities will cover the contaminated media in sufficient detail to support the FS. Boundaries for site access control and site security will also be identified. The boundaries of the study area may or may not correspond to the property boundaries.

Identify Potential Receptors

Private and public water supply wells within a 2-mile radius of the site will be identified. If possible, well construction details for these wells and other private water supply wells, which may have been previously sampled, will be obtained. A table summarizing the known construction

details will be prepared and submitted with the original drilling logs, as available.

Develop Site Conceptual Model

A description of the physical site conditions including geology, meteorology, hydrology, and hydrogeology will be developed from the existing site data. This description will constitute the site conceptual model. All subsequent site investigation activities will be focused on refining and validating this model. The conceptual model will focus on the groundwater flow system and will be based on the depositional history, inferred recharge and discharge mechanisms, estimated topographic and hydraulic gradients, and existing and past land use patterns.

As shown on Figure 1, the Investigative Support and Description of Current Situation (Task 1) will be conducted prior to, or concurrent with, the Work Plan Preparation (Task 0). The Preliminary Site Evaluation Report will be submitted as supporting documentation with the Work Plan.

TASK 2 - SITE INVESTIGATIONS

Investigations necessary to characterize the site and its actual or potential hazard to public health and the environment will be conducted. The investigations will result in data of adequate technical content to support the development and evaluation of remedial alternatives during the FS. Investigation activities will focus on problem definition and data to support the screening of remedial technologies, alternative development and screening, and detailed evaluation of alternatives.

The site investigation activities will follow the plans set forth in Task 0. All sample analyses will be conducted at laboratories following EPA protocols or their equivalents. Strict chain-of-custody procedures will be followed, and all samples will be located on the site map (and grid system) established under Tasks 0 and 1. A description of the types of investigations that will be conducted is presented below.

Source Characterization

An investigation will be carried out to characterize the physical and chemical aspects of the waste materials and the materials in which they are contained. The investigation of these source areas will involve obtaining data related to:

- Waste characteristics (type, quantity, chemical and physical properties, and concentrations); and
- Facility characteristics (type and integrity of containment, leachate collection systems, and drainage control).

It is anticipated that this information will be obtained from a combination of existing site information, field inspections, and site sampling activities. Field investigations may be needed to determine the integrity of the landfill covers.

The source characterization will culminate in the preparation and submittal of a technical memorandum. This memorandum will summarize the findings of the source characterization and will recommend parameters, or classes of parameters, which will be the focus of subsequent contaminant characterization studies.

Migration Pathway Assessment

The migration pathways at the Hagen Farm site will be physically characterized through the following types of investigations:

Hydrogeologic: A hydrogeologic study will be performed to further evaluate the subsurface geology and characteristics of the water bearing formations. This study will define the site hydrostratigraphy, controlling geologic features, zones of preferential groundwater transmission, and the distribution of hydraulic heads within the water bearing formations. The results of this study will be combined with the existing site data described in the

preliminary site evaluation report and the results of the source characterization to define the groundwater flow patterns and to predict the vertical and lateral extent of contaminant migration. These predictions will form the rationale for locating and designing monitor wells and the subsequent contaminant characterization.

Hydrologic: Drainage patterns and runoff characteristics will be evaluated for the potential of erosional transport. Staff gauges may also be used to evaluate the hydraulic connection between surface water bodies and the groundwater flow system and to determine the potential for sediment transport.

Soils and Sediments: The physical characteristics of the site soils and aquatic sediments will be evaluated. Some elements of this investigation may overlap with the Hydrogeologic and the Hydrologic investigations.

Air: The potential for airborne particle transport will be evaluated to determine if an atmospheric testing program (over and above that required for assuring the personal protection of the site workers and surrounding community) should be initiated at later project stages.

It is anticipated that this information will be derived from a combination of existing data and information, and data resulting from the field investigations.

Again, the Migration Pathway Assessment will culminate in the preparation and submittal of a technical memorandum describing the findings of the assessment. This memorandum will also contain specific recommendations for the location and design of monitoring stations (i.e., wells, air quality samplers, surface water samplers, etc.).

Contaminant Characterization

Data generated from the Pathway Assessment and Source Characterization will be used to design an environmental sampling and analysis program. The objective of this program is to evaluate the extent and magnitude of

contaminant migration along the pathways of concern at the Hagen Farm Landfill site.

Monitoring points will be installed in each media previously identified as a migration pathway. This monitoring network may incorporate several of the piezometers and/or gauge installed during the Pathway Assessment.

The analytical parameters list used in this subtask will be based on the data collected during the source characterization. The selection of parameters or classes of parameters (i.e., volatile organics, metals, PCBs/pesticides) will be based upon their source concentration and their persistence and mobility within the most likely pathway of migration. Provisions will be made for conducting full Hazardous Substance List (HSL) analyses at those monitoring stations where there is a reasonable anticipation of detecting a complex contaminant profile. All samples will be collected, handled, and analyzed in accordance with the protocols and procedures described in the site Sampling and Quality Assurance Project Plans.

As shown on Figure 1, provisions will be made for conducting additional site investigation activities after the completion of the Remedial Alternatives Screening (Task 7). These supplemental investigations are intended to further characterize the sources, pathways, and/or contaminants and to satisfy the specific data requirements of the applicable remedial actions. The plans for these investigations and the Bench/Pilot Studies (Task 4) will be prepared and submitted for agency comment and approval after the completion of Task 7.

TASK 3 - SITE INVESTIGATION ANALYSIS

An analysis of all data collected during this investigation will be made to assure that the quality (e.g., QA/QC procedures have been followed) and quantity of data adequately support the Endangerment Assessment and FS. A summary of the analysis will be submitted to U.S. EPA and Wisconsin DNR as the preliminary data transmittal.

The results of the site investigations will be organized and presented in a report. The data from the investigation will be used to develop a summary of the type and extent of on-site contamination.

Based upon the specific chemicals and ambient levels at the site, the number and location of the surrounding population, and migration pathways, an endangerment assessment will be conducted by the responsible parties to evaluate the actual or potential threat to human health, welfare, or the environment. Actual or potential risks will be quantified whenever possible. A general approach for the endangerment assessment is offered as follows:

- Select target chemicals for evaluation, based on the likelihood of their being major contributors to the risks associated with the site.
- Conduct exposure assessments which include identifying acute and chronic hazards of concerns and also identifying populations at risk.
- Conduct an evaluation of existing toxicity information to determine the potential impacts of the site contaminants as they regard acute and chronic effects; specific effects such as carcinogenicity, reproductive dysfunction, teratogenicity, neurotoxicity, and other metabolic alterations; and environmental effects of aquatic and terrestrial toxicities.
- Assess impact by identifying acceptable exposure guidelines or standards, comparing estimated doses with these guidelines or standards, and for target chemicals at the site that have received carcinogen assessments by EPA, utilize EPA's evaluations to drive estimates of increased cancer risks.

This assessment will be conducted in accordance with the procedures described in the Superfund Public Health Evaluation Manual (ICF, 1986).

TASK 4 - BENCH/PILOT TESTING STUDIES

If necessary, bench and piloting scale testing studies will be performed to determine the applicability of selected remedial technologies to site specific conditions. These may include treatability and cover studies, aquifer testing, and/or material compatibility testing. As shown on Figure 1, these studies will be conducted in the later stages of the RI after the initial screening of remedial technologies and actions.

TASK 5 - REPORTS

Progress Reports

Monthly progress reports will be prepared to describe the technical progress of the RI. These reports shall be submitted to the U.S. EPA and WDNR by the tenth business day of each month, following the commencement of the work detailed in the RI/FS Work Plan. The monthly progress reports shall include the following information:

- All sampling and testing results and all other raw data produced during the month pursuant to the implementation of the Consent Order;
- A description of activities completed during the past month pursuant to the Consent Order, as well as such actions and plans which are scheduled for the next month pursuant to the Consent Order;
- A description of difficulties encountered during the reporting period and the actions taken to rectify the problems.
- Target and actual completion dates for each element of activity, including the project completion, and an explanation of any deviation from the schedules provided in the RI/FS Work Plan; and
- Changes in key personnel.

Technical Memorandums

The results of specific remedial investigation activities such as the migration assessment, source characterization, endangerment assessment, etc., will be submitted to the U.S. EPA and Wisconsin DNR throughout the RI process. These memorandums will only be submitted in draft form. All responses to U.S. EPA and WDNR comments regarding issues pertaining to the memorandums will be addressed in letters from the Respondent Project Coordinator to the U.S. EPA Remedial Project Manager and will be summarized in the draft RI report. The specific technical memorandums and their associated schedule of submittal will be identified in the project Work Plan (Task 0).

Remedial Investigation Report

A final report covering the remedial investigations will be prepared. The report will characterize the site and summarize the data collected and conclusions drawn from investigative Tasks 1 through 3. The report will be submitted in draft form for review and comment. Upon receipt of comments, a draft final report will be prepared and submitted. The RI report will not be considered final until a letter of approval is issued by the U.S. EPA Remedial Project Manager.

TASK 6 - COMMUNITY RELATIONS SUPPORT

A community relations program will be implemented conjunctively by the U.S. EPA and the WDNR. The Responsible Parties will cooperate with the U.S. EPA and the WDNR in providing RI/FS information to the public. The Responsible Parties will, at the request of the U.S. EPA or WDNR, participate in the preparation of all appropriate information disseminated to the public, and in public meetings which may be held or sponsored by the U.S. EPA or the WDNR to explain activities at, or concerning, the site, including the findings of the RI/FS.

Community relations support will be consistent with Superfund community relations policy, as stated in the "Guidance for Implementing the Superfund Program" and Community Relations in Superfund - A Handbook.

FEASIBILITY STUDY

Scope

The purpose of the FS for the Hagen Farm Landfill NPL site is to develop alternative remedial actions, based upon the results of the RI, which will mitigate impacts to public health and welfare and the environment.

The FS will conform to Section 121 of SARA; the NCP, as amended; and the FS Guidance, as amended; and is comprised of the following four tasks:

- Task 7: Remedial Alternatives Screening
- Task 8: Remedial Alternatives Evaluation
- Task 9: Feasibility Study Report
- Task 10: Additional Requirements

The intent and purpose of each of these tasks is outlined in the following sections. The technical approach and schedule for each of these tasks will be detailed in the RI/FS Work Plan (Task 0).

TASK 7 - REMEDIAL ALTERNATIVES SCREENING

This task constitutes the first stage of the FS and is comprised of six interrelated subtasks. The objective of this task is to develop and evaluate remedial alternatives for additional screening and evaluation. The results of the Public Health Evaluation will be considered throughout this evaluation process.

Subtask 7A - Preliminary Remedial Technologies

A master list of potentially feasible technologies will be developed. These technologies will include both on-site and off-site remedies, depending on the magnitude of the problem documented during the RI. In addition to site conditions, the master list will also be screened based on waste characteristics, technical requirements to eliminate or modify those technologies that may prove extremely difficult to implement, will require unreasonable

time periods, will rely on insufficient developed technology. Emerging technologies that are being evaluated through the U.S. EPA's SITE program will also be evaluated, if that information is available. The results of this task will be summarized in a technical memorandum which will be submitted to the U.S. EPA and the Wisconsin DNR.

Subtask 7B - Development of Alternatives

Based on the results of the RI and consideration of preliminary remedial technologies, a limited number of alternatives, which are based on objectives established for the response, will be developed.

1. Establishment of Remedial Response Objectives

Site-specific objectives for the response will be established. These objectives will be based on public health and environmental concerns for the Hagen Farm site, the description of the current situation, information gathered during the RI, Section 300.68 of the National Contingency Plan (NCP), the U.S. EPA's interim guidance, and the requirements of any other applicable U.S. EPA, Federal, and Wisconsin environmental standards, guidance and advisories as defined under Section 121 of SARA. Preliminary cleanup objectives will be developed under formal consultation with the U.S. EPA and the WDNR.

2. Alternatives Remedial Actions

Combinations of identified technologies will be assembled into alternative remedial actions. To the extent it is both feasible and appropriate, alternatives and other appropriate considerations will be developed into a comprehensive, site-specific approach. Alternatives that will be developed will include the following:

- a. Treatment alternatives for source control that eliminates the need for long-term management (including monitoring).

- b. Alternatives involving treatment as a principal element to reduce the toxicity, mobility, or volume of waste.

3. Additional Alternatives

At least two additional alternatives will be developed, including the following:

- a. An alternative that involves containment of waste with little or no treatment but provides protection of human health and the environment primarily by preventing the exposure or reducing the mobility of the waste.
- b. A no action alternative.

For groundwater response actions, a limited number of remedial alternatives will be developed within a performance range that is defined in terms of a remediation level. The targeted remediation level will be within the risk range of $10E-04$ to $10E-07$ for maximum lifetime risk and includes different rates of restoration. If feasible, one alternative that would restore groundwater quality to a $10E-06$ risk for maximum lifetime risk level within five years will be configured.

The remedial action alternatives developed for the Hagen Farm site may involve both source control and groundwater response actions. In these instances, the two elements may be formulated together so that the comprehensive remedial action is effective and the elements are complementary. However, because each element has different requirements, they will be detailed separately in the development and analysis of alternatives.

Subtask 7C - Initial Screening of Alternatives

1. Initial Screening

The alternatives developed under Subtask 7B will be subjected to an initial screening to narrow the list of potential remedial actions for detailed analysis. The rationale for eliminating any alternative will be included. The considerations that will be used in the Initial Screening include:

- a. Effectiveness: Alternatives will be evaluated to determine whether they adequately protect human health and the environment; attain Federal and Wisconsin ARARs or other applicable criteria, advisories, or guidance; significantly and permanently reduce the toxicity, mobility, or volume of the hazardous constituents; are technically reliable; or are effective in other respects. The consideration of reliability will include the potential for failure and the need to replace the remedy.
- b. Implementability: Alternatives will be evaluated as to the technical feasibility and availability of the technologies that each alternative would employ; the technical and institutional ability to monitor, maintain, and replace technologies over time; and the administrative feasibility of implementing the alternative.
- c. Cost: The cost of construction and any long-term costs to operate and maintain the alternative will be evaluated. This evaluation will be based on conceptual costing information and not a detailed cost analysis. At this stage of the FS, cost will be used as a factor when comparing alternatives that provide similar results, but will not be a consideration when comparing treatment and non-treatment alternatives.

However, cost will be a factor in the final remedial selection process as described in Subtask 8B, Section 1, paragraphs (c) and (d).

2. Preservation of Alternatives

The initial screening of alternatives incorporating treatment will be conducted with the intent of:

- a. Preserving the most promising alternatives as determined by their likely effectiveness and implementability.
- b. Preserving for further analysis a range of alternatives as described previously in Subtask 7B(2).

Innovative alternative technologies will be carried through the screening if there is a reasonable belief that they offer either potential for better treatment performance or implementability; fewer or lesser adverse impacts than other available approaches; or lower costs for similar performance than the demonstrated technologies.

The containment and no-action alternatives will be carried through the screening process to the detailed analysis.

Subtask 7D - Alternatives Array Document

To obtain ARARs from Wisconsin, a detailed description of alternatives (including the extent of remediation, contaminant levels to be addressed, and method of treatment) will be prepared. This document will also include a brief site history and background, a site characterization that indicates the contaminants of concern, migration pathways, receptors, and other pertinent site information. A copy of this Alternative Array Document will be submitted to the U.S. EPA and the WDNR, along with the request for a notification of the standards.

Subtask 7E - Community Relations Program

A program for community relations support will be developed. The program will be consistent with the Community Relations Plan developed under Task 2 and with the conditions set forth in the Administrative Order.

Subtask 7F - Data Requirements

Data requirements that are specific to the relevant and applicable technologies will be identified. These requirements will be focused on providing data that is needed for detailed evaluation and development of a preferred alternative.

TASK 8 - REMEDIAL ALTERNATIVES EVALUATION (U.S. EPA TASK 9)

Subtask 8A - Detailed Analysis of Alternatives

1. Evaluation of Alternatives

The action-specific Federal and Wisconsin ARARs and other criteria, advisories, and guidance to be used in the analysis and selection of a remedy will be identified and described. Alternatives will be analyzed in sufficient detail so that the remedies can be selected from a set of defined and discrete hazardous waste management approaches.

The information needed to develop and evaluate each alternative will be developed. The alternatives will be evaluated under the general factors of effectiveness, implementability, and cost using the more specific component measures such as protectiveness, compliance with ARARs, reliability, and technical feasibility. The detailed analysis of each alternative will include both short-term and long-term considerations for effectiveness, implementability, and cost.

2. Comparison of Alternatives

Under this subtask, the alternatives will be compared to each other using the full array of evaluation factors appropriate for the Hagen Farm site. Component measures of effectiveness will include the degree to which the alternative is protective of human health and the environment. Where ARAR health based standards are established and applicable, they will be used to establish the minimum level of protection at the site. Where such levels do not exist, risk assessments will be used to establish site appropriate levels. The reliability of the remedy, including the potential need for the cost of replacement, will be used as another important element in measuring effectiveness. Site specific measures may also include other health risks borne by the affected population, population sensitivities, and the impacts on environmental receptors. If a groundwater response action is appropriate for the site, the potential for the spread of the contaminant plume and the technical limits of aquifer restoration will be used as measures of effectiveness. Another important measure of effectiveness is the degree to which the mobility, toxicity, or volume of the hazardous substance, pollutant, or contaminant is reduced.

Component measures of implementability that will be considered include the technical feasibility of the alternative; the administrative feasibility of implementing this alternative; and the availability of any needed equipment, specialists, or off-site capacity. Specific measures for groundwater remedial actions will include the feasibility of providing an alternate water supply to meet current groundwater needs, the potential need for groundwater, and the effectiveness and reliability of institutional controls.

Component measures of cost that will be used in this comparison will include short-term capital and operational costs and any long-term operation and maintenance costs. Present worth analyses will be used to compare the alternatives.

Subtask 8B - Preferred Remedy

The preferred remedy will be described within a chapter of the FS report. The criteria for remedy selection will be:

1. The appropriate remedy will be recommended from among those alternatives that meet the following findings:
 - a. The alternative shall be protective of human health and the environment. The alternative will meet the ARARs or health based levels that are established through risk assessments when ARARs do not exist or are waived.
 - b. Except under circumstances listed in the NCP, the alternative shall attain all ARARs that have been identified for the site.
 - c. The alternative shall be cost effective, accomplishing a level of protection that cannot be achieved by less costly methods.
 - d. The alternative will utilize treatment technologies and permanent solutions to the maximum extent practicable as determined by technological feasibility, availability, and cost effectiveness.
2. The preferred remedy will reflect the following preferences:
 - a. Remedies that involve treatment that significantly reduces the toxicity, mobility, or volume of hazardous constituents as a principal element.
 - b. Remedies that minimize the requirement for long-term management of residuals.

3. An alternative that is preferred, but does not meet the Federal or Wisconsin public health or environmental ARARs, will be selected only when:
 - a. The alternative is an interim remedy and will become part of a more comprehensive final remedy that will meet the Federal and Wisconsin ARARs.
 - b. Compliance with the ARAR will result in a greater risk to human health and the environment than the alternative options.
 - c. Compliance with the requirements is technically impractical.
 - d. The alternative will attain a standard of performance that is equivalent to that required under the otherwise applicable standard, requirement, or limitation through the use of another method or approach.
 - e. Wisconsin has not consistently applied, or demonstrated the intention to consistently apply, the requirement at other similar facilities across the state.
4. The evaluation of alternatives to select the appropriate remedy will, in addition to meeting the required findings in Section 300.68(h)(1) of the NCP and reflecting the preferences in Section 300.68(h)(2) of the NCP, also consider and weigh the full range of factors in Section 300.68(e)(2) of the NCP. The selected alternative will represent the best balance across all evaluation criteria.

TASK 9 - FINAL FS REPORT

The FS will be documented in a draft report which will be submitted for review and comment. Upon receipt of comments, a draft final FS report will be prepared and submitted. The FS report will not be considered final until

a letter of approval is issued by the U.S. EPA Remedial Project Manager. Deliverables and technical memorandums prepared previously will be summarized and referenced in order to limit the size of the report. However, the report will completely document the FS and the process by which the recommended remedial alternative was selected.

